REMARKS

Applicant requests reconsideration of the rejection of the claims set forth in the Office Action dated July 14, 2005. In the Office Action, the Examiner indicated that claims 5-14, 16 and 17 are pending in the application (applicant believes that claim 1 is also pending, and that claim 11 is not pending), and the Examiner rejected claims 1, 5-10, 12-14, 16 and 17. The rejections are respectfully traversed below.

The §112 Rejections

On page 2 of the Office Action, the Examiner rejected claims 1, 5-10, 12-14, 16 and 17 under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. Applicant respectfully traverses this rejection. For the first time in the almost 5-year-and-counting prosecution of this application, the Examiner asserts that the term "crawl process", which has been in the claims since the filing date of this application in 1999, was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor had possession of the invention at the time the invention was made.

First, applicant describes in detail the crawling process performed by the crawler 450 of Figure 4, on page 15 of the application as filed. Second, the Examiner recognized the well-known nature of the crawl process in her Office Action dated March 23, 2003, when she cited the definition of "crawl" from the Microsoft Computer Dictionary, fifth edition. Third, Applicant, directs the Examiner to U.S. Patent No. 5,832,494 to Egger et al., column 49, lines 30 - 54, which includes the following text:

> Next, the system accesses link data 3004 or "crawls" the source web page (or source node 2008) looking for URLs which directly link the source web page to other web pages. Web crawling is a known technique in the art, performed by most World Wide Web search services, such as Yahoo (located at www.yahoo.com) or Alta Vista. Crawling is accomplished by the use of automated programs called robots or spiders, which analyze a web page for objects which provide URL links to other web pages or documents.

The term "crawling process" as used in the present application was clearly described in the application, was known to the Examiner, and was well known in the art at least as early as 1996 when the Egger et al. patent was filed. Accordingly, the Examiner respectfully requests that the examiner reconsider and withdraw the rejection of claims 1, 5-10, 12-14, 16, and 17 under 35 U.S.C. §112, first paragraph. §112, first paragraph.

Rejections under 35 U.S.C. §§102 and 103

On page 3 of the Office Action, the Examiner rejected claims 1, 5 and 6 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,117,349 to Tirfing et al., and on page 4 of the Office Action, the Examiner rejected claims 7-10, 12-14, 16 and 17 under 35 U.S.C. §103(a) as being unpatentable over Tirfing et al. in view of U.S. Patent No. 6,016,557 to Kasprzyk.

The Present Invention

The present invention is an asset locator for locating software assets, code assets and the like that are stored in code repositories used by software designers. A crawl process is performed on a storage device on which assets are stored to identify the assets. Asset-specific

parameters related to the stored assets are identified, and the assets are then analyzed based upon these parameters. Textual and semantic information is extracted from the stored assets and then the extracted textual and semantic information is stored and indexed for retrieval.

The present invention has particular application in a software-development environment where the stored code assets may number in the millions and may be written in diverse languages such as, for example, Java, C/C++, COBOL, HTML, and/or XML.

In a preferred embodiment, a series of data analyzers that are specific to each type of data contained in the code repositories (e.g., a Java analyzer, a C/C++ analyzer, a COBOL analyzer, an HTML analyzer, and/or an XML analyzer) are integrated into the system so that they can be used to search the code repositories using particular attributes specific to the semantics of a particular language used to code the asset. In another preferred embodiment, the repositories are crawled automatically according to a schedule defined by the user, and the results of the crawling are stored in a database. Ordinary keyword searching can then be used with the system, either independently or combined with the attribute-specific semantic searching, to search the database.

U.S. Patent No. 5,117,349 to Tirfing et al.

U.S. Patent No. 5,117,349 to Tirfing et al. ("Tirfing") teaches a database system for text files. In the embodiment relied upon by the Examiner, Tirfing generates a database by analyzing a source file (i.e., a computer program to be compiled) and generates object code for subsequent execution of the computer program (Tirfing, column 5, lines 55 - 62). In its analysis of the source file, the Tirfing compiler identifies each symbol and symbol type used in

the computer program. The database builder utilizes this information to identify the corresponding semantic tags and to generate the database component file comprising each identified symbol, the line number the symbol is located on in the source file, and the corresponding semantic tag defined in the tag set definition file (Tirfing, column 5, line 62 - column 6, line 2).

U.S. Patent No. 6,016,557 to Kasprzyk

U.S. Patent No. 6,016,557 to Kasprzyk ("Kasprzyk") teaches a source code monitor and method having an interface for monitoring execution of a source coded computer program by a processor. The Examiner relies on Kasprzyk for an alleged teaching of an analysis means comprising an analysis server, said server including one or more asset type specific server.

The Cited Prior Art Does Not Anticipate the Claimed Invention

The MPEP and case law provide the following definition of anticipation for the purposes of 35 U.S.C. §102:

> "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." MPEP §2131 citing *Verdegaal Bros. v. Union Oil Company of California*, 814 F.2d 628, 631, 2 U.S.P.Q. 2d 1051, 1053 (Fed. Cir. 1987)

The Examiner Has Not Established a *prima facie* Case of Anticipation

As noted above, the present claimed invention specifically claims a method and system for locating assets from among stored assets of diverse types, and in particular, diverse types of code assets. The claimed invention includes the performance of a crawl process on a storage device on which diverse types of code assets are stored, so as to identify the stored assets. The various asset type and asset specific parameters are then identified before the stored assets are analyzed based on the asset-specific parameters. These elements are clearly recited in claim 1:

> "A computer-implemented method for indexing and locating code assets of diverse types stored on a storage device, comprising the steps of:
> performing a crawl process on said storage device to identify stored assets;
> identifying the asset type of, and asset-specific parameters related to, said stored assets, said asset-specific parameters comprising languages in which each code asset is written;
> analyzing said stored assets based on said identified asset-specific parameters ...."

Tirfing, by way of contrast, contains no teaching or suggestion of the performance of a crawl process of any kind, nor is Tirfing concerned with the location of code assets of diverse types. The text of Tirfing cited by the examiner contains no teaching or suggestion as to how the source file that is analyzed is located; it presupposes that a user of the Tirfing system already knows which source file they wish to analyze. The user simply analyzes a source file of interest.

The present invention, on the other hand, actually locates code assets of diverse types, and then analyzes them after identifying the types of assets and parameters specific to each type. Since these elements are expressly claimed in independent claim 1, and since Tirfing contains neither a teaching nor a suggestion of these claimed features, the rejection of claims 1, 5, and 6 under 35 U.S.C. §102 based on Tirfing is improper. Accordingly, the Examiner is

respectfully requested to reconsider and withdraw the rejection of claims 1, 5, and 6 under 35 U.S.C. §102.

The Examiner has not Established a *prima facie* Case of Obviousness

To support a rejection under 35 U.S.C. §103, a reason, suggestion, or motivation to lead an inventor to combine two or more references must be found. *Pro-Mold and Tool Co. v. Great Lakes Plastics Inc.*, 37 U.S.P.Q.2d 1627, 1629 (Fed.Cir. 1996) (see also MPEP 2143). The Examiner has not met this burden, as set forth below.

The Examiner asserts that Tirfing teaches a crawling means for reading the contents of a storage device to identify stored assets stored on the storage device. As noted above, Tirfing contains no such teaching. Tirfing has no need to perform a a crawl process to identify assets, as Tirfing already knows that they intend to analyze "the computer program to be compiled" (column 5, lines 60 - 61).

Likewise, Kasprzyk contains no such teaching. The Examiner relies on Kasprzyk for an alleged teaching of an analysis means comprising an analysis server. The Examiner also asserts that Kasprzyk teaches that the analysis server includes one or more asset-specific servers. Applicant acknowledges that Kasprzyk the use of an analysis server. However, since Kasprzyk does not contain a teaching or suggestion of the performance of the crawl process that is missing form Tirfing and claimed in the present invention, the combination proposed by the Examiner does not suggest the claimed invention. Accordingly, the Examiner is respectfully requested to reconsider and withdraw the rejection of claims 7-10, 12-14, 16 and 17 under 35 U.S.C. §103(a).

Conclusion

The claimed invention is neither taught nor suggested by Tirfing or Kasprzyk, either alone or in combination. Accordingly, reconsideration of the present application, and withdrawal of the rejections on the grounds of 35 U.S.C. §§ 101, 102 and 103 is respectfully requested.

The Commissioner is hereby authorized to charge any fees associated with this communication to Deposit Account No. 19-5425.

Respectfully submitted,

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Date

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